

Claims

1. A composition for delivering an active substance to a nasal membrane, the composition comprising:

about 90 to about 99.999 weight percent of a carrier, said carrier comprising about 0.5 to about 5.0 weight percent glycerin and a thickener, wherein said thickener includes at least one of the following: carrageenan, sugar, guar gum, methylcellulose, carbohydrate thickeners, aloe barbadensis gel, antiseptics, preservatives, permeation enhancers, sequestering agents, buffers, and emulsifiers; and

about 0.001 to about 5.0 weight percent of a decongestant, wherein the composition has a viscosity greater than about 2,500 centipoise.

2. The composition of claim 1, where in the decongestant comprises at least one of the following: oxymetazoline hydrochloride; naphazoline hydrochloride, ephedrine, phenylephrine hydrochloride, xylometaxoline hydrochloride, camphor, eucalyptus oil, menthol, and azulen.

3. The composition of claim 1 further comprising a permeation enhancer.

4. The composition of claim 3, where the permeation enhancer comprises at least one of the following: liposomes, sequestering agents, ascorbic acid, glycerol, chitosan, lysophosphotidylcholin, EDTA, and disodium EDTA.

5. The composition of claim 1 further comprising a preservative.

6. The composition of claim 5, wherein the preservative comprises at least one of the following: benzalkonium chloride and benzyl alcohol.

7. The composition of claim 1 further comprising an emulsifier.

8. The composition of claim 7, wherein the emulsifier comprises at least one of the following: glycerolpolyethylene glycol ricinoleate, fatty acid esters of polyethyleneglycol, ethoxylated glycerol, polyethylene glycol, and hydroxylated lecithin.

9. The composition of claim 1 further comprising a buffer.

10. The composition of claim 9, wherein the buffer comprises at least one of the following: monosodium phosphate and disodium phosphate.

11. A composition for delivering an active substance to a nasal membrane, the composition comprising:

about 75 to about 99.999 weight percent of a carrier comprising a thickener, wherein said thickener includes at least one of the following: glycerin, carrageenan, sugar, guar gum, methylcellulose, carbohydrate thickeners, aloe barbadensis gel, antiseptics, preservatives, permeation enhancers, sequestering agents, buffers, and emulsifiers; and

about 0.000001 to about 10 weight percent an active substance,

wherein the composition has a viscosity from about 3,000 centipoise to about 10,000 centipoise.

12. The composition of claim 11, wherein the active substance comprises at least one of the following: vitamins, minerals, nucleic acids, amino acids, peptides, polypeptides, proteins, genes, mutagens, antiviral agents, antibacterial agents, anti-inflammatory agents, decongestants, histamines, anti-histamines, anti-allergens, allergy-relief substances, homoeopathic substances, and pharmaceutical substances.

13. The composition of claim 12, where in the decongestant comprises at least one of the following: oxymetazoline hydrochloride; naphazoline hydrochloride, ephedrine, phenylephrine hydrochloride, xylometaxoline hydrochloride, camphor, eucalyptus oil, menthol, and azulen.

14. The composition of claim 11, wherein the carrier includes glycerin.

15. The composition of claim 14, wherein the carrier includes about 0.5 to about 5.0 weight percent glycerin.

16. The composition of claim 11 further comprising a permeation enhancer.

17. The composition of claim 16, where the permeation enhancer comprises at least one of the following: liposomes, sequestering agents, ascorbic acid, glycerol, chitosan, lysophosphatidylcholin, EDTA, and disodium EDTA.

18. The composition of claim 11 further comprising a preservative.

19. The composition of claim 18, wherein the preservative comprises at least one of the following: benzalkonium chloride and benzyl alcohol.

20. The composition of claim 11, further comprising an emulsifier.

21. The composition of claim 20, wherein the emulsifier comprises at least one of the following: glycerolpolyethylene glycol ricinoleate, fatty acid esters of polyethyleneglycol, ethoxylated glycerol, polyethylene glycol, and hydroxylated lecithin.

22. The composition of claim 11 further comprising a buffer.

23. The composition of claim 22, wherein the buffer comprises at least one of the following: monosodium phosphate and disodium phosphate.

24. A composition for delivering an active substance to a nasal membrane, the composition comprising:

about 90 to about 99.999 weight percent of a carrier and the carrier comprises about 0.5 to about 5.0 weight percent glycerin;

about 0.001 to about 1.0 weight percent of a decongestant;

about 0.0001 to about 0.1 weight percent of a thickener;

about 0.001 to about 1.0 weight percent of a permeation enhancer;

about 0.001 to about 1.0 weight percent of a preservative; and

about 0.0001 to about 1.0 weight percent of an emulsifier,

wherein the composition has a viscosity from about 4,000 centipoise to about 6,000 centipoise.

25. The composition of claim 24, wherein the decongestant comprises about 0.045 to about 0.055 weight percent oxymetazoline hydrochloride.

26. The composition of claim 25, wherein the decongestant further comprises at least one of an effective amount of eucalyptus and methol.

27. A method of delivering an active substance to the nasal membrane, the method comprising the steps of:

providing a the composition of claim 1; and

applying the composition to the nasal cavity.

28. A method of delivering an active substance to the nasal membrane, the method comprising the steps of:

providing the composition of claim 11; and

applying the composition to the nasal cavity.

29. A system for delivering an active substance to the nasal membrane, the system comprising:

a composition having about 90 to about 99.999 weight percent of a carrier and the carrier comprises about 0.5 to about 5.0 weight percent glycerin, and about 0.001 to about 5.0 weight percent of a decongestant, wherein the composition has a viscosity greater than about 2,500 centipoise; and

a nasal applicator,

wherein the composition is contained within the nasal applicator for dispensing an effective dosage into the nasal cavity of a patient.

30. A composition for application to a nasal membrane to reduce symptoms associated with allergies and the common cold, the composition comprising:

about 90 to about 99.999 weight percent of a carrier;

about 0.001 to about 5.0 weight percent of an active ingredient comprising oxymetazoline hydrochloride; and

about 0.00001 to about 5.0 weight percent of a permeation enhancer comprising liposomes;

wherein the composition has a viscosity configured to maintain said active ingredient in direct contact with a nasal membrane for an effective period of time.

31. A composition for application to a nasal membrane to reduce symptoms associated with allergies and the common cold, the composition comprising:

about 90 to about 99.999 weight percent of a carrier;

about 0.001 to about 5.0 weight percent of an active ingredient comprising oxymetazoline hydrochloride;

about 0.00001 to about 5.0 weight percent of a permeation enhancer comprising liposomes; and

about 0.000001 to about 1.0 weight percent of an aromatic substance comprising at least one of menthol or eucalyptus extract;

wherein the composition has a viscosity configured to maintain said active ingredient in direct contact with a nasal membrane for an effective period of time.